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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/527,444

10/28/2005

Abdelwahab Aroussi

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EXAMINER

SORKIN, DAVID L

ART UNIT

PAPER NUMBER

1797

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DELIVERY MODE

01/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/527,444	<b>Applicant(s)</b> AROUSI, ABDELWAHAB	
	<b>Examiner</b> DAVID L. SORKIN	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 22-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 22-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>13 June 2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. In claim 31, "homogenizer" should read - - homogenizer - -.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 22-25 and 28-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheridan et al. (US 4,852,564). Regarding claim 1, Sheridan ('564) discloses a pipe (14 or a subportion thereof) having an inlet end and an outlet end and one or more core sections (28 and/or 30 or pluralities thereof), each pipe section defining a change in cross-sectional area (see Fig. 2). Regarding claim 22, the cross-sectional area of a core pipe section extending from the inlet end increases from the cross-sectional area of the inlet end to a relatively larger cross sectional area (see Fig. 2). Regarding claim 23, the cross sectional areas of the inlet and outlet ends are equal (see Fig. 2). Regarding claim 24, the core is defined by two pipe sections (28,30), the first pipe section (30) defining a relatively gradual increase in cross-sectional area from an inlet cross-sectional area to a maximum cross-sectional area and the second core pipe section (28) defining a relatively rapid decrease in cross-sectional area from

Art Unit: 1797

the maximum cross sectional area to an outlet cross sectional area. Regarding claim 25, the core is defined by two pipe sections (28,30), the first pipe section (30) defining a relatively gradual increase in cross-sectional area from an inlet cross-sectional area to a maximum cross-sectional area and the second core pipe section (28) defining a relatively gradual decrease in cross-sectional area from the maximum cross sectional area to an outlet cross sectional area.

Regarding claim 28, the core is defined by two pipe sections (28,30), the first pipe section (30) defining a relatively rapid increase in cross-sectional area from an inlet cross-sectional area to a maximum cross-sectional area and the second core pipe section (28) defining a relatively rapid decrease in cross-sectional area from the maximum cross sectional area to an outlet cross sectional area.

Regarding claim 29, the core is defined by two pipe sections (28,30), the first pipe section (28) defining a relatively gradual increase in cross-sectional area from an inlet cross-sectional area to a maximum cross-sectional area and the second core pipe section (30) defining a relatively gradual decrease in cross-sectional area from the maximum cross sectional area to an outlet cross sectional area. Regarding claim 30, the core is defined by four core pipe sections and a middle section (two sets of 28,30, on opposite sides of a middle set of 28,30), the first and second pipe sections being connected in series between the inlet end and the middle section, and the third and fourth pipe sections being connected in series between the middles section and the outlet end, the first core pipe section (30) defining a gradual increase in cross-sectional area from an inlet cross sectional area to a first maximum cross-sectional area,

Art Unit: 1797

the second core pipe section (28) defining a relatively rapid decrease in cross sectional area from the first maximum cross-sectional area to a middle cross-sectional area, the third core pipe section (30) defining a relatively gradual increase in cross-sectional area from the middle-sectional area to a second maximum cross sectional area and the fourth core pipe section (28) defining a relatively rapid decrease in cross-sectional area from the second maximum cross-sectional area to an outlet cross-sectional area. Regarding claim 31-44, Sheridan ('564) discloses a pipe (14 or a subportion thereof) having an inlet end and an outlet end and one or more core sections (28 and/or 30 or pluralities thereof), each pipe section defining a change in cross-sectional area (see Fig. 2). A tapered throat / wedge-shaped ramp/ aerofoil (28,30) is located at the inlet and outlet ends. Regarding claims 45-50, jets (16,18) are located at each end.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheridan et al. (US 4,852,564). Numerical values for the recited size ratios are not provided by Sheridan. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830,

Art Unit: 1797

225 USPQ 232 (1984) concerning the obviousness of selecting relative dimensions.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID L. SORKIN whose telephone number is (571)272-1148. The examiner can normally be reached on Mon.-Fri. 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/527,444  
Art Unit: 1797

Page 6

/DAVID L. SORKIN/  
Primary Examiner, Art Unit 1797